

WHAT IS CLAIMED IS:

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1. An input device, comprising:
an input panel for inputting data when
being touched;
a current conducting element for
10 conducting a driving current when the input panel is
touched, said current conducting element being
arranged in a region corresponding to a peripheral
region of the input panel; and
a magnetic field application unit
15 configured to apply a magnetic field to the current
conducting element, the magnetic field application
unit being arranged in the region corresponding to
the peripheral region of the input panel, wherein
the magnetic field intersects the current conducting
20 element, and a portion of the magnetic field that
intersects the current conducting element is
parallel to the input panel.

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2. The input device as claimed in claim 1,
wherein
the current conducting element is a
30 rectangular coil and is fixed in the region
corresponding to the peripheral region of the input
panel; and
the magnetic field application unit is
arranged to face the current conducting element.

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3. The input device as claimed in claim 1,
wherein the current conducting element is a printed
pattern formed on the input panel.

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4. The input device as claimed in claim 1,
10 wherein

the magnetic field application unit is
fixed in the region corresponding to the peripheral
region of the input panel; and

the current conducting element is arranged
15 to face the magnetic field application unit.

20 5. The input device as claimed in claim 1,
further comprising:

a contact detection unit for detecting
contact on the input panel; and

a driving unit for supplying the driving
25 current to the current conducting element when the
contact detection unit detects contact on the input
panel.

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6. The input device as claimed in claim 5,
wherein the driving current has a predetermined
frequency.

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7. The input device as claimed in claim 6,
wherein the driving current has a frequency in an
audible frequency range.

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8. The input device as claimed in claim 5,
10 wherein the frequency of the driving current is
changeable according to a position of the contact on
the input panel.

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9. The input device as claimed in claim 5,
wherein

the contact detection unit detects an
20 electromotive force induced on the current
conducting element.

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10. The input device as claimed in claim
1, wherein the input panel is swingable relative to
a predetermined center.

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11. The input device as claimed in claim
1, wherein

35 the magnetic field application unit
includes:

a first permanent magnet; and

a second permanent magnet,
wherein
magnetic poles of the first permanent
magnet are arranged to be opposite to respective
5 magnetic poles of the second permanent magnet; and
a direction along the magnetic poles of
each of the first permanent magnet and the second
permanent magnet is perpendicular to a plane formed
by the magnetic field intersecting the current
10 conducting element.

15 12. A vibrating device, comprising:
a panel section;
a current conducting element for
conducting a driving current to drive the panel
section to vibrate, said current conducting element
20 being arranged in a region corresponding to a
peripheral region of the panel section; and
a magnetic field application unit
configured to apply a magnetic field to the current
conducting element, the magnetic field application
25 unit being arranged in the region corresponding to
the peripheral region of the panel section, wherein
the magnetic field intersects the current conducting
element, and a portion of the magnetic field that
intersects the current conducting element is
30 parallel to the panel section.

35 13. A driving device for driving a panel
to vibrate, comprising:
a current conducting element for

conducting a driving current, said current
conducting element being arranged in a region
corresponding to a peripheral region of the panel;
and

5 a magnetic field application unit
configured to apply a magnetic field to the current
conducting element, the magnetic field application
unit being arranged in the region corresponding to
the peripheral region of the panel, the magnetic
10 field intersecting the current conducting element,
and a portion of the magnetic field that intersects
the current conducting element being parallel to the
panel.

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14. The driving device as claimed in
claim 13, wherein

20 the current conducting element is a
rectangular coil and is fixed in the region
corresponding to the peripheral region of the panel;
and

 the magnetic field application unit is
25 arranged to face the current conducting element.

30 15. The driving device as claimed in
claim 13, wherein the current conducting element is
a printed pattern formed on the panel.

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16. The driving device as claimed in

claim 13, wherein

the magnetic field application unit is
fixed in the region corresponding to the peripheral
region of the panel; and

5 the current conducting element is arranged
to face the magnetic field application unit.

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17. The driving device as claimed in
claim 13, further comprising:

a contact detection unit for detecting
contact on the panel; and

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a driving unit for supplying the driving
current to the current conducting element when the
contact detection unit detects contact on the panel.

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18. The driving device as claimed in
claim 17, wherein the driving current has a
predetermined frequency.

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19. The driving device as claimed in
30 claim 18, wherein the driving current has a
frequency in an audible frequency range.

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20. The driving device as claimed in
claim 17, wherein the frequency of the driving

current is changeable according to a position of the contact on the panel.

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21. The driving device as claimed in claim 17, wherein

10 the contact detection unit detects an electromotive force induced on the current conducting element.

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22. The driving device as claimed in claim 13, wherein the panel is swingable relative to a predetermined center.

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23. The driving device as claimed in claim 13, wherein

25 the magnetic field application unit includes:

a first permanent magnet; and

a second permanent magnet,

wherein

30 magnetic poles of the first permanent magnet are arranged to be opposite to respective magnetic poles of the second permanent magnet; and

a direction along the magnetic poles of each of the first permanent magnet and the second permanent magnet is perpendicular to a plane formed by the magnetic field intersecting the current
35 conducting element.